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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: John S. Sadowsky
Title: SYMBOL DE-MAPPING METHODS IN MULTIPLE-INPUT MULTIPLE-OUTPUT SYSTEMS

Docket No.: 884.A49US1
Filed: December 31, 2003
Examiner: Unknown

Serial No.: 10/750,169
Due Date: N/A
Group Art Unit: 2181

MS Amendment

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

- ☒ A return postcard.
- ☒ An Information Disclosure Statement (2 pgs.), Form 1449 (1 pg.), and copies of 6 cited documents, including the International Search Report for corresponding PCT Application PCT/US2004/043089 (3 pgs.).

If not provided for in a separate paper filed herewith, Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
Customer Number 21186

By: *Ann M. McCrackin*
Atty: Ann M. McCrackin
Reg. No. 42,858

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 21st day of June, 2005.

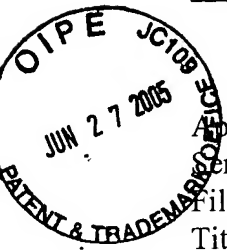
JAMES KAWYUSIK
Name

James Kawyusik
Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
(GENERAL)

S/N 10/750,169

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	John S. Sadowsky	Examiner:	Unknown
Serial No.:	10/750,169	Group Art Unit:	2181
Filed:	December 31, 2003	Docket:	884.A49US1
Title:	SYMBOL DE-MAPPING METHODS IN MULTIPLE-INPUT MULTIPLE-OUTPUT SYSTEMS		
Assignee:	Intel Corporation	Customer Number:	21186

INFORMATION DISCLOSURE STATEMENT

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicant respectfully requests that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicant requests that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicant with the next official communication.

The attached documents were discovered as a result of a Search Report in Applicants' corresponding foreign patent application. Enclosed for the Examiner's information is a copy of the cited documents and the Search Report.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.

INFORMATION DISCLOSURE STATEMENT

Customer No.: 21186

Serial No.: 10/750,169

Filing Date: December 31, 2003

Title: SYMBOL DE-MAPPING METHODS IN MULTIPLE-INPUT MULTIPLE-OUTPUT SYSTEMS

Assignee: Intel Corporation

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Dkt: 884.A49US1 (INTEL)

The Examiner is invited to contact the Applicant's Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

JOHN S. SADOWSKY

By his Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

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Date June 21, 2005

By Ann M. McCrackin

Ann M. McCrackin

Reg. No. 42,858

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JAMES KANYUSIK
Name

[Signature]
Signature



Substitute for form 1449A/PTO
**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Use as many sheets as necessary)

Complete if Known

Application Number 10/750,169

Filing Date December 31, 2003

First Named Inventor Sadowsky, John

Group Art Unit 2181

Examiner Name Unknown

Sheet 1 of 1

Attorney Docket No: 884.A49US1

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		"International Search Report filed in corresponding PCT Application No. PCT/US2004/043089", (Attorney Docket No. 884.A49WO1), (May 5, 2005), 3 pgs.	
		CUI, T., et al., "Approximate ML Detection for MIMO Systems Using Multistage Sphere Decoding", <u>Signals, Systems & Computers</u> , 1, Conference Record of the 38th Asilomar Conference on Pacific Grove (IEEE), (2004), 1054-1056	
		GARRET, D. C., et al., "19.2 Mbit/s 4x4 Blast/MIMO Detector with Soft ML Outputs", <u>Electronics Letters, IEE Stevenage</u> , 39(2), (2003), 233-235	
		GARRET, D., et al., "APP Processing for High Performance MIMO Systems", <u>Proceedings of the IEEE 2003 Custom Integrated Circuits Conference (CICC 2003)</u> , Vol. Conf. 25, 2003), 271-274	
		RUPP, M., et al., "Approximate ML Detection for MIMO Systems with Very Low Complexity", <u>Acoustics, Speech & Signal Processing, 2004.4, Proceedings (ICASSP'04)</u> , IEEE Inter. Conf. on Montreal Quebec, (2004), 809-812	
		VITERBO, E., et al., "A Universal Lattice Code Decoder for Fading Channels", <u>IEEE Transactions on Information Theory</u> , 45(5), (1999), 1639-1642	

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional) ² Applicant is to place a check mark here if English language Translation is attached